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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,115	09/16/2003	Mark Scott	3831 P 004	1821

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EXAMINER	
JULES, FRANTZ F	

ART UNIT	PAPER NUMBER
3617	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,115	SCOTT, MARK	
	Examiner	Art Unit	
	Frantz F. Jules	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 11-25* is/are rejected.

7)☒ Claim(s) *9-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 13-15, 18, 20, 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Monaco et al (US 6,357,612).

Monaco et al disclose a rail car cushioning device connected to a coupler, being switchable between a locked mode and a cushioning mode, comprising a housing comprising a hydraulic cylinder, a front head, a rear head and a reservoir (42), the hydraulic cylinder (44) extends between the front head and the rear head defining a chamber; a piston (46), comprising a piston rod extending through the front head into the chamber and a piston head carried in the piston chamber, the piston being responsive to buff and draft impacts; and, a valve assembly (64) in fluid communication with the cylinder including a valve body having an inlet opening and an outlet opening defining a passageway, a valve member interposed in the passageway being movable between an open position and a closed position to control fluid flow through the passageway as disclosed in col 3, lines 44-51.

In a cushioning mode or during movement of the of the piston toward the rear head, the valve (64) is in an open position enabling fluid to communicate between the cylinder and reservoir via the valve assembly enabling the piston to stroke between a first and

second position in the cylinder in response to buff and draft impacts on a coupler in accordance with the disclosure of col 3, lines 45-48 claim 2.

In a locked mode, the valve is in a closed position, preventing fluid from flowing though the valve assembly, preventing the piston from stroking, forming a relatively rigid structure in accordance with the disclosure of col 3, lines 48-51 and with claim 3.

The valve assembly further comprising a valve actuator which is a ball valve member for controlling the movement of the valve member in accordance with claim 4.

The cylinder including one or more ports (74) to enable fluid flow between the cylinder and the reservoir.

The device further includes one or more ports located in the inner wall proximate to the rear head enabling fluid flow between the reservoir and the buff chamber, and a one-way check valve disposed in the port enabling fluid to flow into the buff chamber from the reservoir during draft movement of the piston in accordance with claim 22-23.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

4. Claims 5-6, 21 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monaco et al (US 6,357,612) in view of Cope (US 3,599,803).

Monaco et al teach all the limitations of claims 5-6, 9, 21 and 24 except for a cushioning device comprising a controller in communication with valve actuator for remotely controlling the valve. The general concept of providing a controller in communication with valve actuator in a railcar cushioning device is well known in the art as illustrated by Cope which disclose the teaching of a controller in communication with valve actuator associated with a piston and cylinder assembly, see lines 30-40. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cope to include the use of a controller in communication with valve actuator for remotely controlling the valve in his advantageous rail car cushioning device in order to coordinate the operation of the cushioning device with the opening and closing of the coupler thereby improving the performance of the system.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Monaco et al (US 6,357,612) and Cope (US 3,599,803), as applied to claim 1 above, and further in view of Seay et al (US 5,586,669).

Monaco et al and Cope teach all the limitations of claim 7 except for a cushioning device comprising a proximity sensor that send car approaching signal to the controller. The general concept of providing a location sensor that send signal to the controller in a railcar cushioning device is well known in the art as illustrated by Seay et al which disclose the teaching of location sensors that send positioning signal of the piston to a controller see abstract section. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cope to include the use of a proximity sensor that send car approaching signal to the controller in his advantageous rail car

cushioning device in order to coordinate the operation of the cushioning device with the approaching vehicle thereby improving the performance of the system.

6. Claims 8, 11, 15, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monaco et al (US 6,357,612) in view of Seay (US 3,301,410).

Monaco et al teach all the limitations of claims 8, 11, 15, 23 except for a metering pin extending outwardly from a piston head toward a rear head having an opening with an orifice disposed therein. The general concept of providing a metering pin extending outwardly from a piston head toward a rear head having an opening with an orifice disposed therein is well known in the art as illustrated by Seay et al which disclose the teaching of a metering pin extending outwardly from a piston head toward a rear head having an opening with an orifice disposed therein, see Fig. 1ion. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Monaco to include the use of a metering pin extending outwardly from a piston head toward a rear head having an opening with an orifice disposed therein in his advantageous rail car cushioning device in order to guide the piston of the cushioning device thereby improving the performance of the system by reducing slack in the system.

7. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monaco et al (US 6,357,612) in view of Carle et al (US 4,040,523).

Monaco et al teach all the limitations of claims 16-17 except for a cushioning device comprising at least one channel in the piston head including an overload protection valve extending through the piston head. The general concept of providing at least one

channel in the piston head including an overload protection valve extending through the piston head is well known in the art as illustrated by Carle et al which discloses the teaching of at least one channel in the piston head including an overload protection valve extending through the piston head, see figs. 7-10, col 7, lines 11-20. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Monaco et al to incorporate the use of at least one channel in the piston head including an overload protection valve extending through the piston head in his advantageous railcar cushioning device in order to control fluid flow between the low pressure chamber and the high pressure chamber as disclosed in col 7, lines 12-15.

8. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monaco et al (US 6,357,612) in view of Zanow (US 3,525,449).

Monaco et al teach all the limitations of claims 16-17 except for a cushioning device comprising at least one channel in the front head for allowing fluid to enter the draft chamber from the reservoir. The general concept of providing at least one channel in the front head for allowing fluid to enter the draft chamber from the reservoir in a cushioning device is well known in the art as illustrated by Zanow which discloses the teaching of at least one channel (138) in the front head for allowing fluid to enter the draft chamber from the reservoir. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Monaco et al to incorporate the use of at least one channel in the front head for allowing fluid to enter the draft chamber from the reservoir in his advantageous railcar cushioning device in order to provide a buffer capable of high energy dissipation as disclosed in col 1, lines 37-43.

Allowable Subject Matter

9. Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 11/21/2005 have been fully considered but they are not persuasive.

A. Summary of the Applicant's arguments.

1. Monaco does not disclose a switchable functiontiona;ity as the valve member (72) does not have a lock mode. The cushioning device of Monaco is permanently in a cushioning mode as valve assemblies (72) of Monaco are permanently in a cushioning mode since they are biased spring backed valves. As a result Monaco fails to meet the limitations of claims 1-4.

2. The combination rejection of the claims over Monaco in view of the Cope reference is improper since there is no teaching or suggestion within Monaco or Cope to suggest using a controller to perform controlling or closing of a valve.

3. The combination rejection of claim 7 is not taught by the prior arts of record as Monaco in combination Cope and Seay I do not teach a proximity sensor.

4. The rejection of claims 8, 11, 15-17, 23 are traversed for the same reason as the traversal of claim 1 and the status of claim 25 is not clear.

B. Response to the Applicant's arguments.

1. In response to the Applicant's argument number one, it must be recognized that the cushioning device of Monaco operates similarly to that of Applicant in that the valve assembly (64) of Monaco includes "a valve body having an inlet opening and an outlet opening defining a passageway" and presenting the switchable functionality of a cushioning mode and a lock mode. It is factual and arcurate that, in a cushioning mode or during movement of the of the piston toward the rear head, the valve (64) is in an open position enabling fluid to communicate between the cylinder and reservoir via the valve assembly enabling the piston to stroke between a first and second position in the cylinder in response to buff and draft impacts on a coupler as explained in col 3, lines 45-48 of Monaco. Similarly, in a locked mode the valve is in a closed position, preventing fluid from flowing through the valve assembly. Correction have been made to the rejection above to correct error previously made by incorrectly identifying the valve assembly as valve 72 instead of 64. As a result of the correction made above in the valve identification, the Monaco reference meets all the limitations of claims.

1. In response to applicant's argument that there is no teaching or suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, an ordinary skill in the art would have been motivated to incorporate the teaching of

controlling of the valve assembly of the Cope reference in the advantageous cushioning device of Monaco in order to achieve among others the benefit of improving the performance of the system.

It should be noticed that in Cope the opening and closing of a valve opening is being controlled contrary to Applicant's argument that a coupler is being controlled.

3. In response to applicant's argument that there is no teaching or suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, an ordinary skill in the art would have been motivated to incorporate the teaching of positioning sensors used to monitor the location of the piston of Seay et al and that of sending their signals to a controller into the cushioning device of Monaco combined with Cope in order to achieve among others the benefit of reducing malfunction in the operation of the cushioning device.

4. In response to the Applicant's argument number 4, it must be recognized that the claims are properly rejected for the reasons explained above. Applicant's argument regarding claim 1 is moot in light of the correction made in the identification of the valve assembly which currently identify valve assembly 64. Also, the status of claim 25 stands rejected as it drawn to subject matter similar to claims 5-6.

Conclusion

11. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 272-6681. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules
Primary Examiner
Art Unit 3617

FFJ

January 6, 2006

FRANTZ F. JULES
PRIMARY EXAMINER